

REMARKS

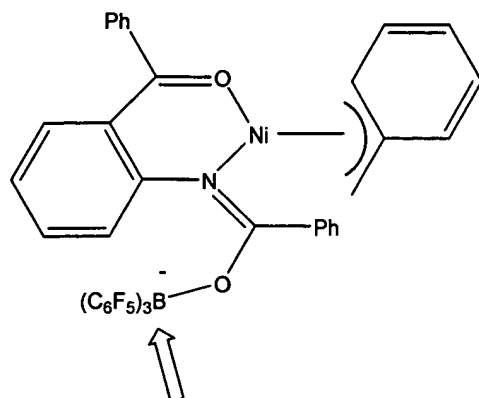
I. Status of the Claims

Claims 1-14 are pending. Applicants cancel claims 2 and 4. Claim 1 is amended to include the limitations of claim 2 and to require that the atom bearing the negative charge be directly bonded to the heteroatom. Support for the amendment can be found on page 4, lines 19-21. Claim 3 is amended to incorporate the limitations of claim 4 as suggested by the Examiner and claim 6 and 7 are amended to depend from claim 3. Claim 8 is amended to include the limitations that the atom bearing the negative charge is selected from the group consisting of B, Al, Sn and Sb and directly bonded to the heteroatom. Support for the amendment can be found in claim 2 and on page 4, lines 19-21. Upon entry of the amendment, claims 1, 3, and 5-14 will remain for consideration.

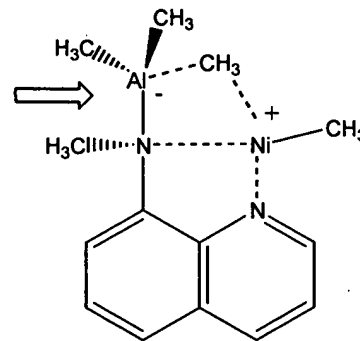
II. Response to the Rejection under 35 U.S.C. § 102(a) based on Shim

Applicants note the rejection of claims 1-3, 5, 8, and 9 as being unpatentable over Shim et al. (J. Organomet. Chem. 675 (2003) 72). Applicants cancel claim 2 and amend claim 3 to incorporate the limitations of claim 4. The Examiner has indicated that claim 4 is allowable if rewritten in independent form and that none of the structural features of claim 4 are taught or suggested by Shim. Since claim 5 depends from as-amended, allowable claim 3, the Examiner should remove the 102(a) rejection of claims 3 and 5.

Applicants' claims 1, 8, and 9, as amended, require that the atom bearing the negative charge is directly bonded to the heteroatom. Shim's metallocycles have a boron bearing the negative charge, but the boron is separated from the heteroatom by one or more atoms.



Shim's complex 5:
Atom bearing the negative charge
separated from the N by two atoms



Applicants' Example 1:
Atom bearing the negative charge
directly connected to the N

Because Shim does not teach metallocycles possessing the requisite structural features recited in the claims, as amended, the Examiner should remove the 102(a) rejection of claims 1, 8, and 9.

III. Response to the Rejection under 35 U.S.C. § 103(a) based on Shim in view of Lee

Applicants note the rejection of claims 10 and 12-14 as being unpatentable over Shim et al. (*J. Organomet. Chem.* 675 (2003) 72) in view of Lee et al. (U.S. Pat. No. 6,803,433). Upon entry of the amendment, none of the claimed structural features of the zwitterionic metallocycle are taught or suggested in the combined references and one of ordinary skill in the art would not have found it obvious to modify the existing compounds to arrive at the claimed invention. The combined references do not suggest an olefin polymerization process with a zwitterionic metallocycle wherein one of the heteroatoms is directly substituted with an atom bearing a full or partial negative charge. The structures of Shim have the atom bearing the negative charge separated by one or more atoms from the heteroatom. The structures of Lee have the substituent bearing the negative charge attached at an entirely different position of the metallocycle.

The rejection should be removed because a polymerization with a metallocycle having the claimed structural features is not suggested in the combined references.

IV. Response to the Rejection under 35 U.S.C. § 103(a) based on Shim in view of Wang.

Applicants note the rejection of claims 10-12 and 14 as being unpatentable over Shim et al. (J. Organomet. Chem. 675 (2003) 72) in view of Wang et al. (U.S. Pat. No. 6,897,275). Upon entry of the amendment, none of the claimed structural features of the zwitterionic metallocycle are taught or suggested in the combined references and one of ordinary skill in the art would not have found it obvious to modify the existing compounds to arrive at the claimed invention. The combined references do not suggest an olefin polymerization process with a zwitterionic metallocycle wherein one of the heteroatoms is directly substituted with an atom bearing a full or partial negative charge. The structures of Shim have the atom bearing the negative charge separated by one or more atoms from the heteroatom. Wang shows a plethora of structures and many are metallocycles, but not zwitterionic metallocycles. The zwitterionic metallocycles that are shown (see structures 118 and 120) do not have the heteroatom substituted. There are no structures with an atom bearing a negative charge directly attached to the heteroatom of the metallocycle.

The rejection should be removed because a polymerization with a metallocycle having the claimed structural features is not suggested in the combined references.

V. Response to the Rejection under 35 U.S.C. § 102(b) based on Thakkar

Applicants note the rejection of claim 1 as being unpatentable over Thakkar et al. (J. Indian Chem. Soc., 72 (1995) 421). Applicants' claim 1, as amended, requires that the atom bearing the negative charge be selected from the group consisting of B, Al, Sn, and Sb. The structure of Thakkar has the negative charge on an O atom. There is no indication in Thakkar of other

zwitterionic metallocycles. Upon entry of the amendment, none of the claimed structural features of the zwitterionic metallocycle are taught or suggested in Thakkar and one of ordinary skill in the art would not have found it obvious to modify the existing compound to arrive at the claimed invention.

Because Thakkar does not teach metallocycles possessing the requisite structural features recited in the claim, as amended, the Examiner should remove the 102(a) rejection of claim 1.

VI. Response to the Objection

The Examiner objects to claims 4, 6, and 7 as being dependent upon a rejected base claim. Applicants thank the Examiner for his helpful suggestion. Applicants cancel claim 4 and amend independent claim 3 to incorporate all the limitations of claim 4. Claims 6 and 7 are amended to depend from amended claim 3.

VII. Conclusion

In view of the amendment and remarks above, Applicants respectfully ask the Examiner to withdraw rejections and the objection and pass the case to issue. Applicants invite the Examiner to telephone their attorney at (610) 359-2276 if he believes that a discussion of the application might be helpful.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first-class mail, with sufficient postage, in an envelope addressed to: Commissioner for Patents, P.O. Box. 1450, Alexandria, VA 22313-1450 on August 30, 2005

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Name of person signing

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Signature

Respectfully submitted,
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